ABSTRACT OF THE DISCLOSURE

This invention involves an improved surgical method and associated apparatus for correcting refractive defects of the vision, using an intracorneal implant. A small radial incision is made in the periphery of the cornea, near the limbus and a blunt spatula is used to separate the lamellae of the corneal stroma. A circular interlamellar pathway through the stroma is formed using either a single 360 degree blunt, arc-shaped dissector tool or a pair of clockwise and counterclockwise 180-200 degree dissector tools. The circular pathway created defines the margin or outer boundary of an intracorneal channel that will be formed. The intracorneal channel is then expanded radially inward in a controlled stepwise fashion to widen the channel or to create an intracorneal pocket. This is done by introducing a dissector tool with a side leg into the incision and moving the dissector tool in an arc-shaped path to widen the intracorneal channel. A single 360 degree dissector tool or a pair of clockwise and counterclockwise 180-200 degree dissector tools can be used. Dissector tools with progressively longer side legs are used to expand the channel until the desired width is achieved or until a complete intracorneal pocket is created. An intracorneal implant, which may be a split ring, segmented ring or continuous ring intracorneal implant or an intracorneal lens implant, is inserted into the channel or pocket and the incision is closed. The intracorneal implant is positioned remotely from the incision so that less stress is exerted on the incision during healing. The surgical apparatus, including the blunt, arc-shaped dissector tools and the side-leg dissector tools can be designed to be operated manually or with a vacuum centering guide which allows careful and precise control over the intracorneal channel created.